_In the Claims:_

1. (original) A method for maintaining a backup storage system for a data storage system comprising:

receiving a plurality of data writes from an application program, the plurality of data writes occurring between a first time and a second time;

determining a backward increment between data on the data storage system at the second time and data on the data storage system at the first time based on the plurality of data writes from the application program to the data storage system;

storing the backward increment;

storing the plurality of data writes; and

updating the backup storage system so that the data on the data storage system at the second time is the same as the data on the backup storage system at the second time.

2. (original) The method of claim 1, further comprising:

determining a forward increment between the data on the data storage system at the first time and the data on the data storage system at the second time based on the plurality of data writes.

3. (original) The method of claim 2, further comprising:

associating the backward increment with the forward increment.

4. (currently amended) The method of claim 2, further comprising:

storing the forward increment; and

storing ~~the~~ an association of the backward increment and the forward increment.

5. (original)   The method of claim 1, further comprising:

storing indicia of the plurality of data writes.

6. (original)   The method of claim 1, wherein said updating the backup storage system comprises:

applying each of the plurality of data writes to an image of data on the backup storage system, thereby recreating the data on the data storage system at the second time.

7. (original)   The method of claim 6, said applying each of the plurality of data writes comprising:

updating the image of the data stored on the backup storage system with the plurality of data writes.

8. (currently amended)     The method of claim 1, wherein said updating the backup storage system comprises:

optimally applying the plurality of data writes to the backup storage system, thereby recreating the data on the data storage system at the second time.

9. (original)   The method of claim 1, wherein a difference between the first time and the second time is a predetermined time period.

10. (original) The method of claim 1, wherein a difference between the first time and the second time is a variable time period.

11. (original) The method of claim 10, wherein a difference between the first time and the second time is dependent on the rate of the plurality of data writes.

12. (original) The method of claim 7, wherein a difference between the first time and the second time is dependent on a quantity of the plurality of data writes.

13. (cancelled)

14. (currently amended) The method of claim 1~~13~~, wherein said updating the backup storage system so that the data on the data storage system at the second time is the same as the data on the backup storage system at the second time includes applying the backward increment to an image of data on the backup storage system, thereby recreating the data on the data storage system at the second time.

15. (currently amended) The method of claim 14, wherein said updating the backup storage system so that the data on the data storage system at the ~~first~~ second time is the same as the data on the backup storage system at the ~~first~~ second time includes applying an individual data write to the image of data on the backup storage system, thereby recreating the data on the data storage system at a point in time between the first time and the second time.

16-19. (cancelled)

20. (original) A method for using a backup storage system for a data storage system comprising:

receiving a plurality of data writes captured between an application and the data storage system, the plurality of data writes occurring between a first time and a second time;

identifying data blocks in the data storage system that were changed based on the plurality of data writes;

applying the plurality of data writes to an image on the backup storage system;

determining a forward increment between data on the data storage system at the first time and data on the data storage system at the second time based on the plurality of data writes;

determining a backward increment between data on the data storage system at the second time and data on the data storage system at the first time based on a plurality of data writes;

storing the forward increment;

storing the backward increment;

storing the plurality of data writes; and

updating the backup storage system so that the data on the data storage system at the second time is the same as the data on the backup storage system at the second time.

21-25. (cancelled)

26.    (new) A system for maintaining a backup storage system for a data storage system comprising:

a production intercept layer configured to receive a plurality of data writes from an application program, the plurality of data writes occurring between a first time and a second time;

a backup agent configured to determine a backward increment between data on the data storage system at the second time and data on the data storage system at the first time based on the plurality of data writes from the application program to the data storage system;

a log file container configured to store the backward increment;

a storage device configured to store the plurality of data writes; and

a backup manager configured to update the backup storage system so that the data on the data storage system at the second time is the same as the data on the backup storage system at the second time.

27. (new)    The system of claim 26, wherein the backup agent is further configured to determine a forward increment between the data on the data storage system at the first time and the data on the data storage system at the second time based on the plurality of data writes.

28. (new)    The system of claim 26, wherein a difference between the first time and the second time is a predetermined time period.

29. (new)    The system of claim 26, wherein a difference between the first time and the second time is a variable time period.

30. (new)    The system of claim 29, wherein a difference between the first time and the second time is dependent on the rate of the plurality of data writes.

31. (new)    The system of claim 26, wherein the backup manager is further configured to apply the backward increment to an image of data on the backup storage system, thereby recreating the data on the data storage system at the second time.

32. (new)    The system of claim 26, wherein the backup manager is further configured to apply an individual data write to the image of data on the backup storage system, thereby recreating the data on the data storage system at a point in time between the first time and the second time.